

Work Order ID 151485

Tuesday, September 27, 2016 11:54:26 AM

151485

Page 1

Item ID: 646.4001 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 9/20/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/27/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **SEP 28 2016** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.4000	C1							DAS 21 9-89	1610-27
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

NOV 04 2016

DAS 6 9-89

9107 77 130

DAS 27 9-89**DAS 28 9-89**

NOV 04 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Tuesday, September 27, 2016 11:54:26 AM

151485

Page 2

Item ID: 646.4001 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 9/20/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/27/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4001 Location: _____ <i>Sold</i>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.02							
Quality Control									

Handwritten stamps:
DAS 28 9-89 NOV 04 2016
DAS 27 9-89
DAS 21 9-89 NOV 04 2016
DAS 21 9-89 NOV 04 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Picklist Print

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Page 1

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM
IPP REV:B 15.01.08 AS PER DWG REV.B DD VERF:JLM IPP
REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
600.0129 *600 0129* VHB TAPE 75935A651		Purchased	No			100	f	48.0000	8	8			DAS 6 9-89
									**			OCT 27 2016	DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					CA2	48							
					m127920	48							
600.0990 *600 0990* Magnabond 6398 Part A Size 112 ml		Purchased	No			100	Each	23.0000	1	1			DAS 6 9-89
									**			OCT 27 2016	DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					CA2	12							
					M135600	12							
					PKG	11							
					M134167	1							
					M134249	2							
					M135213	8							
600.0991 *600 0991* Magnabond 6398 Part B Size 112 ml		Purchased	No			100	Each	22.0000	1	1			DAS 6 9-89
									**			OCT 27 2016	DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					CA2	12							
					m135600	12							
					PKG	10							
					m134167	1							
					m134249	1							
					m135213	8							

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval			
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY									
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :									
* Misidentified ☐	Past Due ☐										

Picklist Print

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Page 2

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No 100 Each 15.0000 1 1

600 1012

Sealant PR1425B2 (#654 sem)

**

OCT 27 2016 DAS 6 27 9-89

Location

Loc Qty

Loc Code

cck017

15

m135407

1

m135530

8

m135600

6

600.1013 Purchased No 100 Each 710.0000 5 5

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

**

OCT 27 2016 DAS 6 27 9-89

Location

Loc Qty

Loc Code

CCK095

710

m131145

710

6/15/2016

646.2910 Manufactured No 100 Each 0.0000 1 1

646 2910

Deflector

**

OCT 27 2016 DAS 6 27 9-89

646.3001 Manufactured No 100 Each 0.0000 1 1

646 3001

Lower Cutter Assembly

**

OCT 27 2016 DAS 6 27 9-89

646.3110 Manufactured No 100 Each 11.0000 1 1

646 3110

Channel

**

OCT 27 2016 DAS 6 27 9-89

Location

Loc Qty

Loc Code

cck020

11

141015

11

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Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By _____					
				Lead hand / Supervisor Approval Verification _____					
				QC / QA Coordinator Approval _____					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
* Misidentified ☐	Past Due ☐								

Picklist Print

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Page 3

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

646.3210

Manufactured No

100 Each

6.0000

1 1

646 3210

Support

**

OCT 27 2016

68-6
9
SVG
DAS
27
9-89

Location

Loc Qty

Loc Code

cck020

6

142469

6

646.3301

Manufactured No

100 Each

0.0000

1 1

646 3301

Upper Cutter Assy

**

OCT 27 2016

DAS
6
9-89
DAS
27
9-89

646.3510

Manufactured No

100 Each

12.0000

1 1

646 3510

Strut

**

OCT 27 2016

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

cck104

2

140979

2

CCK108A

10

140979

10

646.3511

Manufactured No

100 Each

12.0000

1 1

646 3511

Strut

**

OCT 27 2016

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

cck104

4

141499

4

CCK108A

8

141499

8

Tuesday, September 27, 2016 11:54:25 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
*Misidentified ☐	☐	Past Due	☐				

Picklist Print

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Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

646.3610
646 3610
Filler

Manufactured No

100 Each

2.0000

1 1

** 150485

NOV 03 2016
~~OCT 27 2016~~

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck104

2

141103

2

646.3710
646 3710
Doubler

Manufactured No

100 Each

12.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

CCK002

12

140753

12

646.3711
646 3711
Clip

Manufactured No

100 Each

5.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck104

5

142632

5

646.3712
646 3712
Clip

Manufactured No

100 Each

7.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck104

7

140787

7

646.3713
646 3713
Gusset

Manufactured No

100 Each

11.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck105

11

140084

11

Tuesday, September 27, 2016 11:54:25 AM

Shop Packet Print

Page 4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
		Completed By			
		Lead hand / Supervisor Approval Verification			
		QC / QA Coordinator Approval			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

646.3714
646 3714

Gusset

DAS
28
9-89

Manufactured No

100 Each

5.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck105

5

148235

5

646.3715
646 3715

Strut Doubler

28
9-89

Manufactured No

100 Each

16.0000

2 2

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck105

16

142630

1

148568

15

646.3716
646 3716

Gauge Bracket

DAS
28
9-89

Manufactured No

100 Each

23.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck105

23

140845

23

646.3717
646 3717

Doubler

DAS
28
9-89

Manufactured No

100 Each

10.0000

1 1

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

cck105

10

142634

10

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By																																																							
								Lead hand / Supervisor Approval Verification																																																							
								QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____	
* Misidentified ☐	Past Due ☐																																																														

Picklist Print

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Page 6

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

646.3718
646 3718

Custom Washer

Manufactured No

100 Each

1.0000

2 2

** 150389

DAS 27

DAS 9-89 6

OCT 27 2016

DAS 28 9-89

Location

Loc Qty

Loc Code

cck105

1

140788

1

646.3719
646 3719

Doubler

Manufactured No

100 Each

6.0000

2 2

** 150389

DAS 27 9-89

DAS 9-89 6

OCT 27 2016

DAS 28 9-89

Location

Loc Qty

Loc Code

cck105

6

148282

4

149309

2

646.3810
646 3810

Bracket

Manufactured No

100 Each

4.0000

2 2

** 150389

DAS 27

DAS 9-89 6

OCT 27 2016

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK106

4

141555

1

148559

3

646.3811
646 3811

Radius Block

Manufactured No

100 Each

9.0000

1 1

** 150389

DAS 27 9-89 6

OCT 27 2016

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK106

9

140895

1

148258

8

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ * Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 7

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

646.3812
646 3812
Gusset Bracket

Manufactured No

100 Each

7.0000

2 2

**

OCT 27 2016

DAS 27
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

7

148240

7

646.3813
646 3813
Strut Bracket

Manufactured No

100 Each

4.0000

1 1

**

OCT 27 2016

DAS 27
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

4

141019

1

148269

3

646.3910
646 3910
Shim

Manufactured No

100 Each

14.0000

4 4

**

OCT 27 2016

DAS 27
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

14

148261

14

646.3911
646 3911
Shim

Manufactured No

100 Each

31.0000

1 1

**

OCT 27 2016

DAS 27
6 27
9-89 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

16

126229

16

CCK106

15

126059

15

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
* Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Page 8

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

646.3912
646 3912

Shim

DAS
28
9-89

Manufactured No

100 Each

21.0000

4 4

**

OCT 27 2016
OCT 27 2016

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

21

140238

6

149310

15

646.3913
646 3913

Shim

DAS
28
9-89

Manufactured No

100 Each

71.0000

1 1

**

OCT 27 2016

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

71

126060

71

646.9410
646 9410

Shim

DAS
28
9-89

Manufactured No

100 Each

80.0000

1 1

**

OCT 27 2016

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

cck011

80

140671

80

647.0112
647 0112

Strut Bracket

DAS
28
9-89

Manufactured No

100 Each

4.0000

2 2

**

15/352
OCT 27 2016

DAS
27
9-89
DAS
6
9-89

Location

Loc Qty

Loc Code

CCK107

4

148232

4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	* Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
				OTHER : ☐			

Picklist Print

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Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

647.7703

Manufactured No

100 Each

6.0000

2 2

647 7703

Strut Assembly

**

OCT 27 2016 DAS 6 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK114

6

145013

6

650.9201

Manufactured No

100 Each

4.0000

2 2

650 9201

Eyelet Bracket Assembly

**

NOV 04 2016 DAS 6 27 9-89 B130359

DAS 28 9-89

Location

Loc Qty

Loc Code

cck126

4

148562

4

AN3-11A

Purchased No

100 Each

175.0000

10 10

AN3-11A

Bolt

**

OCT 27 2016 DAS 6 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

over003

100

m135767

100

ST349

75

m135390

75

AN3-12A

Purchased No

100 Each

234.0000

2 2

AN3-12A

Bolt

**

OCT 27 2016 DAS 6 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST349

234

m133064

16

m135603

218

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Shop Packet Print

Page 9

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Page 10

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-13A Purchased No

100 Each 48.0000 1 1

AN3-13A

Bolt

DAS
28
9-89

**

OCT 27 2016
DAS 27
6 9-89

Location

Loc Qty

Loc Code

GA

20

m127070

20

ST349

28

m134365

28

AN316C4R

Purchased No

100 Each 13.0000 2 2

AN316C4R

Nut, Jam

DAS
28
9-89

**

OCT 27 2016
DAS 27
6 9-89

Location

Loc Qty

Loc Code

ST331

13

m133234

11

m133523

2

AN3-3A

Purchased No

100 Each 205.0000 4 4

AN3-3A

Bolt

DAS
28
9-89

**

OCT 27 2016
DAS 27
6 9-89

Location

Loc Qty

Loc Code

ST350

205

m135466

80

m135566

75

m135672

50

AN3-4A

Purchased No

100 Each 358.0000 10 10

AN3-4A

Bolt

DAS
28
9-89

**

OCT 27 2016
DAS 27
6 9-89

Location

Loc Qty

Loc Code

over003

250

m135704

250

ST350

108

m134955

108

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Shop Packet Print

Page 10

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

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Page 11

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-5A

Purchased

No

100

Each

316.0000

2

2

AN3-5A

Bolt

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

FP001

155

m134502

155

ST350

161

m135058

161

2

AN3-6A

Purchased

No

100

Each

154.0000

2

2

AN3-6A

Bolt

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST349

154

M134955

154

2

AN44-5A

Purchased

No

100

Each

13.0000

2

2

AN44-5A

Eyebolt

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST339

13

m135127

13

2

AN4C7A

Purchased

No

100

Each

44.0000

2

2

AN4C7A

BOLT

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST345

44

m135470

44

2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐		Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐		Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐		Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐		Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐		Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐		Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐		Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐		Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐		Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐		Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER : _____			
*Misidentified ☐	☐	Past Due ☐					

Picklist Print

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Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

AN665-34R Purchased No

100 Each 23.0000 2 2

AN665-34R

Clevis

**

OCT 27 2016

DAS 27 9-89

Location

Loc Qty

Loc Code

ST330

23

M135544

3

M135603

20

CCR264SS3-02 Purchased No

100 Each 335.0000 36 36

CCR264SS3-02

Cherry Rivet

**

OCT 27 2016

DAS 27 9-89

Location

Loc Qty

Loc Code

ST321

335

M134134

2

M135127

33

M135603

300

CR3213-5-3 Purchased No

100 Each 118.0000 14 14

CR3213-5-3

Cherry Rivet

**

OCT 27 2016

DAS 27 9-89

Location

Loc Qty

Loc Code

CCK003

100

m135408

100

ST319

18

m134142

18

MS20426AD5-7 Purchased No

100 Each 901.0000 2 2

MS20426AD5-7

RIVET

**

OCT 27 2016

DAS 27 9-89

Location

Loc Qty

Loc Code

ST311

901

M133922

901

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____				
*Misidentified ☐	☐	Past Due ☐					

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Page 13

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

MS20470AD5-5.5 Purchased

No

100

Each

854.0000

8

8

MS20470AD5-5 5

Rivet

**

OCT 27 2016 DAS 27
6 9-89

Location

Loc Qty

Loc Code

ST309

854

m134063

854

MS20470AD5-6 Purchased

No

100

Each

744.0000

8

8

MS20470AD5-6

RIVET

**

OCT 27 2016 DAS 27
6 9-89

Location

Loc Qty

Loc Code

ST309

744

124089

744

MS20470AD5-7 Purchased

No

100

Each

425.0000

3

3

MS20470AD5-7

Rivet

**

OCT 27 2016 DAS 27
6 9-89

Location

Loc Qty

Loc Code

ST309

425

123425

425

MS21042-08 MS21042L08 Purchased

No

100

Each

0.0000

2

2

MS21042-08

USE MS21042L08

**

OCT 27 2016 DAS 27
6 9-89

MS21042-3 MS21042L3 Purchased

No

100

Each

0.0000

2

2

MS21042-3

Nut

**

OCT 27 2016 DAS 27
6 9-89

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER :			
Misidentified ☐	☐	Past Due	☐				

Picklist Print

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Page 14

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

100

Each

2,139.000

61

61

MS21042L3

Nut

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

FP001

7

M130922

7

GA

261

m134360

112

m135135

149

OVER007

1200

m135530

600

m135767

600

ST303

671

m135407

128

m135600

543

MS21042L4

Purchased

No

100

Each

1,899.000

2

2

MS21042L4

Nut

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

FP001

34

m133363

34

GA

404

m133769

104

m135058

300

OVER007

976

m135603

476

m135704

500

ST303

485

m135470

485

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐		☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator ☐		☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup ☐		☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier ☐		☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training ☐		☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing ☐		☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information ☐		☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing ☐		☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement ☐		☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement ☐		☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER : _____							
Misidentified ☐	☐	Past Due ☐									

Picklist Print

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Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

MS21047-3

Purchased

No

100

Each

99.0000

18

18

MS21047-3

Nut Plate

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

ST301

99

m135603

99

MS24693-C278

Purchased

No

100

Each

55.0000

5

5

MS24693-C278

Screw

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

ST286

55

m135135

55

MS24694-S51

Purchased

No

100

Each

239.0000

5

5

MS24694-S51

Screw

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

ST284

239

m135442

239

MS24694-S54

Purchased

No

100

Each

136.0000

2

2

MS24694-S54

SCREW

**

OCT 27 2016

DAS 6 27
9-89 9-89

Location

Loc Qty

Loc Code

over006

100

m135672

100

ST284

36

m134851

34

m135274

2

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ - Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 16

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

MS24694-S55

Purchased

No

100

Each

186.0000

3

3

MS24694-S55

Screw

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST283

186

m135408

86

m135766

100

3

MS27039-08-13

Purchased

No

100

Each

78.0000

2

2

MS27039-08-13

Screw

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST278

78

124326

78

2

MS27039-1-10

Purchased

No

100

Each

242.0000

2

2

MS27039-1-10

SCREW

**

OCT 27 2016

DAS 6 27 9-89

DAS 6 27 9-89

Location

Loc Qty

Loc Code

GA

12

m129541

12

ST280

230

m135603

230

2

MS27039-1-12

Purchased

No

100

Each

100.0000

6

6

MS27039-1-12

Screw

**

OCT 27 2016

DAS 6 27 9-89

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST280

100

m135566

100

6

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 17

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

100

Each

140.0000

24

24

MS27039-1-16

Screw

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST280

140

m134502

40

m135566

100

MS27039-1-19

Purchased

No

100

Each

83.0000

22

22

MS27039-1-19

Screw

**

135771

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

GA

82

m134134

82

ST280

1

m135058

1

MS27039-1-20

Purchased

No

100

Each

81.0000

2

2

MS27039-1-20

Screw

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST280

81

124326

81

MS27039-1-21

Purchased

No

100

Each

245.0000

4

4

MS27039-1-21

Screw

**

OCT 27 2016

DAS 6 27 9-89

Location

Loc Qty

Loc Code

ST280

245

m127904

245

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Shop Packet Print

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Page 18

Work Order ID: 151485

151485

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 9/20/2016

Required Date: 9/27/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

100

Each

1,782.000

144

144

NAS1149F0332P

Washer

**

DAS
6
9-89

OCT 27 2016

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

282

m133709

282

ST262

1500

m135544

1500

NAS1149F0363P

Purchased

No

100

Each

236.0000

2

2

NAS1149F0363P

WASHER

**

DAS
6
9-89

OCT 27 2016

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

236

124555

236

NAS1149F0432P

Purchased

No

100

Each

1,747.000

4

4

NAS1149F0432P

WASHER

**

DAS
6
9-89

OCT 27 2016

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST260a

1000

M135704

1000

ST262

747

M134955

747

NAS1149FN832P

Purchased

No

100

Each

2,471.000

4

4

NAS1149FN832P

Washer

**

DAS
6
9-89

OCT 27 2016

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

1537

M133769

89

M135058

1448

ST263

934

M135603

934

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED
BY

J. BECKER

DATE: 02/04/16

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR

MFG

QC

EFF.

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR:

N/A

ACTION ITEM:

1. N/A

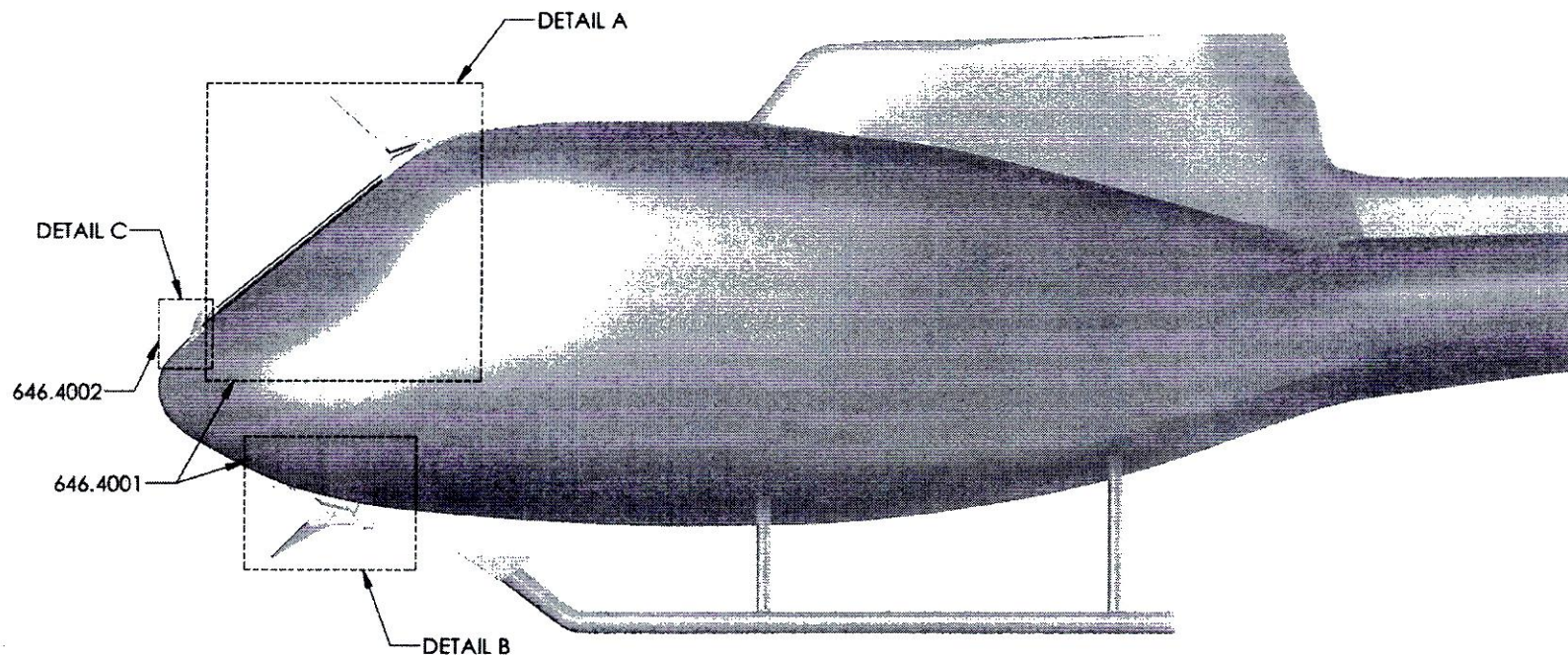
COPY
TURN TO
ENGINEERING
CONTROLLED COPY
NOT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

151485 MLC
1609-28

SHEET 1, BOM IS:

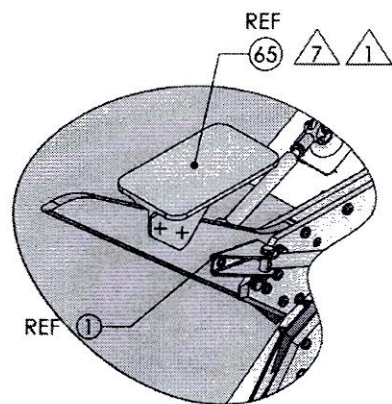
12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N/TC	PART NUMBER	4006	4005	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
 DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
 WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



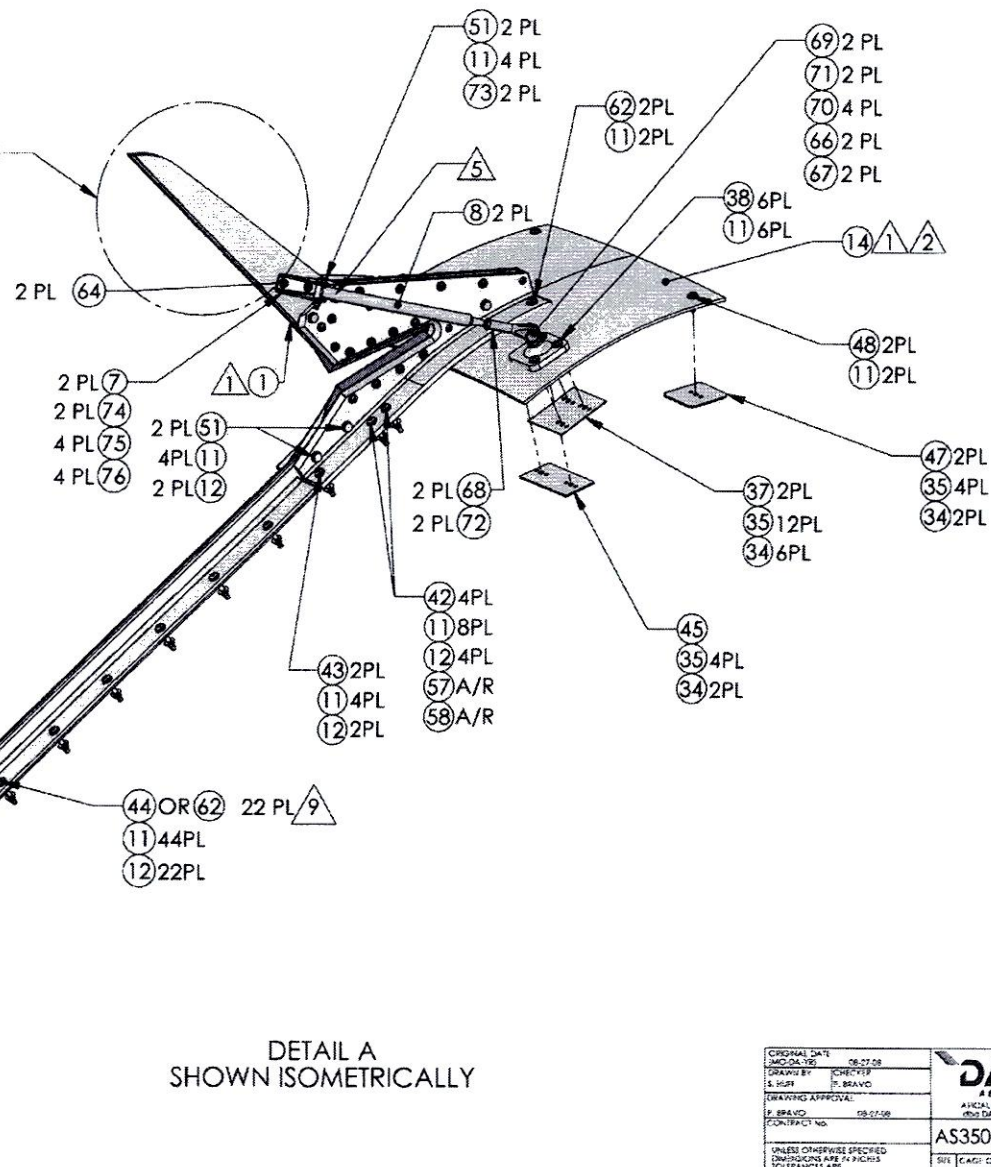
ORIGINAL DATE 08-27-09		DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
DRAWN BY S. HUN		DESIGNED BY P. BRAVO	
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±0.0 2 PLACE DECIMALS ±0.05 ANGLES ± 5°		REV B	REV C
SCALE: NONE		SHEET: 2 OF 5	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AFICAL INDUSTRIES, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF AFICAL INDUSTRIES, INC. IS PROHIBITED.



DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION

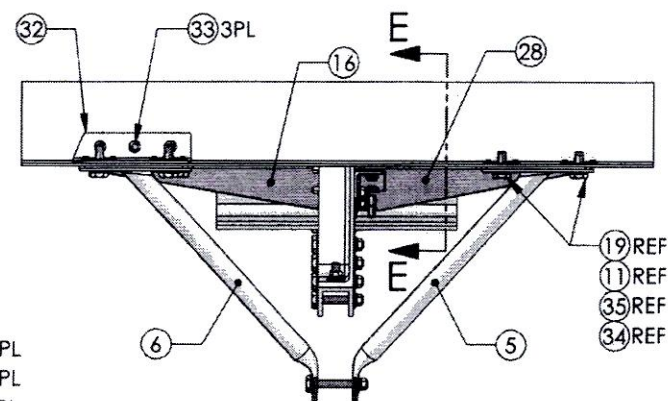
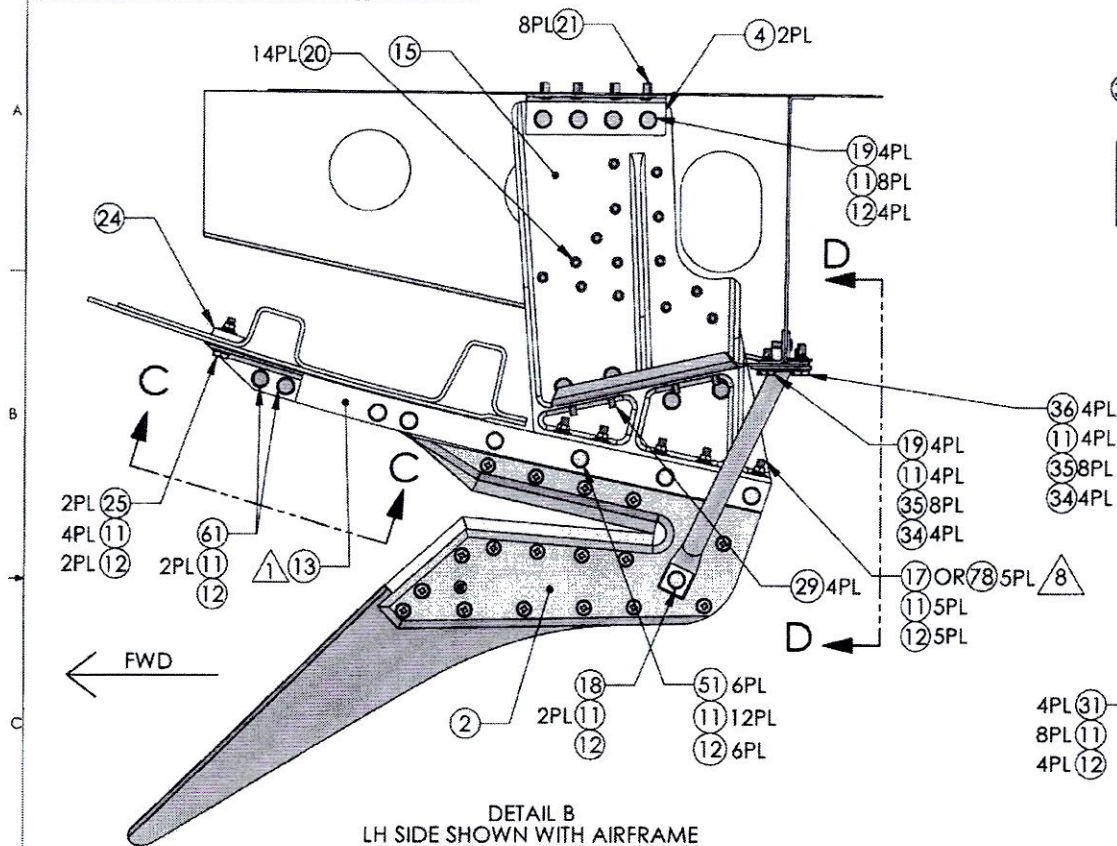
DETAIL D



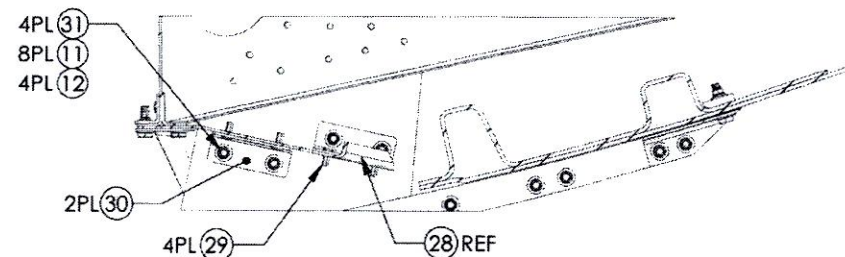
DETAIL A
SHOWN ISOMETRICALLY

ORIGINAL DATE	08-27-08	3030 ENTERPRISE CT., SUITE A	
DRAWN BY	CHRYSTER	VISTA, CA 92081	
S. HUR	T. BRAVO	(760)-724-5300	
DESIGNED BY		AFICAL INDUSTRIES, INC.	
S. BRAVO		AFICAL INDUSTRIES, INC.	
CONTRACT NO.	08-07-08	AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.1°			
SHEET	8	DATE CODE	07M26
DWG. NO.	646.4000	REV	C
SCALE	NONE	SHEET	3 OF 3

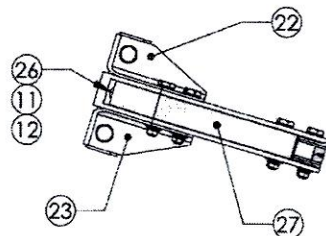
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SECTION D-D
CUTTER HIDDEN FOR CLARITY



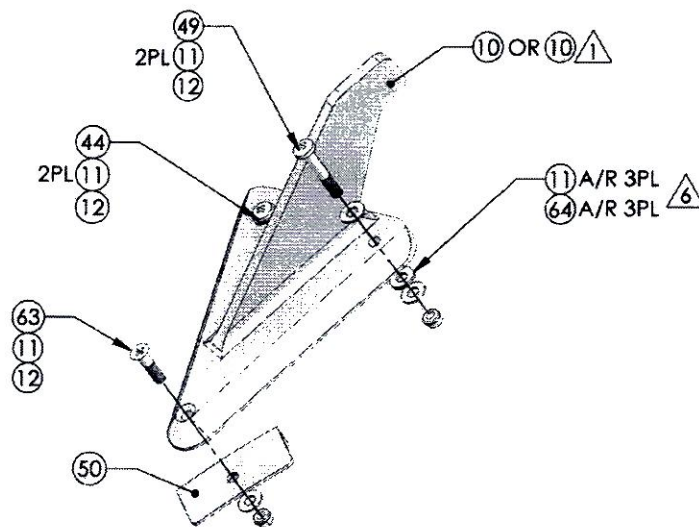
SECTION E-E



SECTION C-C

ORIGINAL DATE RMC-DART 0527-08			3030 ENTERPRISE C1 SUITE A VISTA, CA 92081 (760)-724-5300
DRAWING BY T. F. KILPATRICK			
CHECKED BY P. BRAVO			
DATE 05/27/08			
CONTACT #10			
 			
			
			
			
			
			
			
			
			
			
			
			
			

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 DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
 WRITTEN PERMISSION OF APICAL INDUSTRIES DART AEROSPACE IS PROHIBITED.



DETAIL C
 LH SHOWN EXPLODED
 RH OPPOSITE

ORIGINAL DATE 08-27-00		DART AEROSPACE 3030 ENTERPRISE CT. VISTA, CA 92081 (760)-724-5300	
DRAWN BY S. HUNT		SUB E A	
DESIGNED BY P. BRAVO		SUB E A	
CHECKED BY P. BRAVO		SUB E A	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES 9, 45		SIZE 8	DATE 07/1/06
SCALE NONE		QTY. 646.4000	REV C
		SHEET 5 OF 5	

Thursday, October 27, 2016 8:19:55 AM

Page 1

OCT 7 7 2016

Quality Control

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NOTES:

1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2 INSTALL F/N 14 WITH F/N 52 & 53.

3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5 REUSE FASTENERS FROM F/N 1.

6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

REFERENCE ONLY

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	
1	1	1	77	646.9410	SHIM	
	4	4	76	601.2764	WASHER	
	2	2	75	601.2973	LOCKNUT	
	2	2	74	601.2988	SCREW	
	2	2	73	601.2943	LOCKNUT	
	2	2	72	601.3128	NUT	
	2	2	71	601.3209	LOCKNUT	
	4	4	70	601.2638	WASHER	
	2	2	69	601.2669	BOLT	
	2	2	68	601.3119	CLEVIS	
	2	2	67	601.3121	EYE BOLT	
	2	2	66	650.9201	EYE BRACKET ASSY	
REF	REF	REF	65	647.5701	GPS MOUNT KIT	
		2	64	601.3151	WASHER	
			63	601.2911	SCREW	
	24	24	62	601.2637	SCREW	
2	2	2	61	601.2763	BOLT	
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	55	600.0129	VHB TAPE		
	1	1	54	600.1012	SEALANT	
	1	1	53	600.0991	MAGNABOND 6378 PART B	
	1	1	52	600.0990	MAGNABOND 6378 PART A	
6	10	10	51	601.2826	BOLT	
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	
2		2	48	601.1365	SCREW	
2		2	47	646.3719	DOUBLER	
	2	2	46	646.3718	CUSTOM WASHER	
1		1	45	646.3717	DOUBLER	
	22	22	44	601.1948	SCREW	
	2	2	43	601.1952	SCREW	
	4	4	42	601.1956	SCREW	
4006	4005	4004	4003	4002	4001	FIND #
5	5	5	78	601.3875	SCREW	
1	1	1	77	646.9410	SHIM	
	4	4	76	601.2764	WASHER	
	2	2	75	601.2973	LOCKNUT	
	2	2	74	601.2988	SCREW	
	2	2	73	601.2943	LOCKNUT	
	2	2	72	601.3128	NUT	
	2	2	71	601.3209	LOCKNUT	
	4	4	70	601.2638	WASHER	
	2	2	69	601.2669	BOLT	
	2	2	68	601.3119	CLEVIS	
	2	2	67	601.3121	EYE BOLT	
	2	2	66	650.9201	EYE BRACKET ASSY	
	REF	REF	65	647.5701	GPS MOUNT KIT	
		2	64	601.3151	WASHER	
			63	601.2911	SCREW	
	24	24	62	601.2637	SCREW	
2	2	2	61	601.2763	BOLT	
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	55	600.0129	VHB TAPE		
	1	1	54	600.1012	SEALANT	
	1	1	53	600.0991	MAGNABOND 6378 PART B	
	1	1	52	600.0990	MAGNABOND 6378 PART A	
6	10	10	51	601.2826	BOLT	
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	
2		2	48	601.1365	SCREW	
2		2	47	646.3719	DOUBLER	
	2	2	46	646.3718	CUSTOM WASHER	
1		1	45	646.3717	DOUBLER	
	22	22	44	601.1948	SCREW	
	2	2	43	601.1952	SCREW	
	4	4	42	601.1956	SCREW	
4006	4005	4004	4003	4002	4001	FIND #
5	5	5	78	601.3875	SCREW	
1	1	1	77	646.9410	SHIM	
	4	4	76	601.2764	WASHER	
	2	2	75	601.2973	LOCKNUT	
	2	2	74	601.2988	SCREW	
	2	2	73	601.2943	LOCKNUT	
	2	2	72	601.3128	NUT	
	2	2	71	601.3209	LOCKNUT	
	4	4	70	601.2638	WASHER	
	2	2	69	601.2669	BOLT	
	2	2	68	601.3119	CLEVIS	
	2	2	67	601.3121	EYE BOLT	
	2	2	66	650.9201	EYE BRACKET ASSY	
	REF	REF	65	647.5701	GPS MOUNT KIT	
		2	64	601.3151	WASHER	
			63	601.2911	SCREW	
	24	24	62	601.2637	SCREW	
2	2	2	61	601.2763	BOLT	
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	55	600.0129	VHB TAPE		
	1	1	54	600.1012	SEALANT	
	1	1	53	600.0991	MAGNABOND 6378 PART B	
	1	1	52	600.0990	MAGNABOND 6378 PART A	
6	10	10	51	601.2826	BOLT	
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	
2		2	48	601.1365	SCREW	
2		2	47	646.3719	DOUBLER	
	2	2	46	646.3718	CUSTOM WASHER	
1		1	45	646.3717	DOUBLER	
	22	22	44	601.1948	SCREW	
	2	2	43	601.1952	SCREW	
	4	4	42	601.1956	SCREW	
4006	4005	4004	4003	4002	4001	FIND #
5	5	5	78	601.3875	SCREW	
1	1	1	77	646.9410	SHIM	
	4	4	76	601.2764	WASHER	
	2	2	75	601.2973	LOCKNUT	
	2	2	74	601.2988	SCREW	
	2	2	73	601.2943	LOCKNUT	
	2	2	72	601.3128	NUT	
	2	2	71	601.3209	LOCKNUT	
	4	4	70	601.2638	WASHER	
	2	2	69	601.2669	BOLT	
	2	2	68	601.3119	CLEVIS	
	2	2	67	601.3121	EYE BOLT	
	2	2	66	650.9201	EYE BRACKET ASSY	
	REF	REF	65	647.5701	GPS MOUNT KIT	
		2	64	601.3151	WASHER	
			63	601.2911	SCREW	
	24	24	62	601.2637	SCREW	
2	2	2	61	601.2763	BOLT	
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	55	600.0129	VHB TAPE		
	1	1	54	600.1012	SEALANT	
	1	1	53	600.0991	MAGNABOND 6378 PART B	
	1	1	52	600.0990	MAGNABOND 6378 PART A	
6	10	10	51	601.2826	BOLT	
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	
2		2	48	601.1365	SCREW	
2		2	47	646.3719	DOUBLER	
	2	2	46	646.3718	CUSTOM WASHER	
1		1	45	646.3717	DOUBLER	
	22	22	44	601.1948	SCREW	
	2	2	43	601.1952	SCREW	
	4	4	42	601.1956	SCREW	
4006	4005	4004	4003	4002	4001	FIND #

REV	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 0219, 0221, 0219 & 0245	02/08/2010	P. BRAYO
B	INCORPORATED ECN 0306, 0307 & 0471	11/04/2014	P. BRAYO
C	INCORPORATED ECN 0208	09/09/2015	P. BRAYO

			2		2	41	601.2829	SCREW	MS2464554	
			2		2	40	601.2831	RIVET	MS20426ADS-7	
			1		1	39	646.3716	GAUGE BRACKET		
			6		6	38	601.1953	SCREW	MS27039-1-12	
		2			2	37	646.3715	STRUT DOUBLER		
	2		2		2	36	601.2824	BOLT	AN3-5A	
12		36			36	35	601.2277	RIVET	DC10443-2-02	
6		18			18	34	600.0795	NUT/PLATE	MS2-047-5	
3		3			3	33	601.2565	RIVET	MS20470ADS-7	
1		1			1	32	646.3813	STRUT BRACKET		
4		4			4	31	601.2822	BOLT	AN3-3A	
2		2			2	30	646.3812	GUSSET BRACKET		
8		8			8	29	601.2564	RIVET	MS20470ADS-6	
1		1			1	28	646.3714	GUSSET		
	1		1		1	27	646.3610	FILLER		
	3		3		3	26	601.2830	SCREW	MS2464555	
	2		2		2	25	601.2825	BOLT	AN3-6A	
	1		1		1	24	646.3811	RADIUS BLOCK		
	1		1		1	23	646.3712	CLIP		
	1		1		1	22	646.3711	CLIP		
8		8			8	21	601.2832	RIVET	MS20470ADS-5A	
14		14			14	20	601.2020	RIVET	CR3213-5-3	
4		4		6	10	19	601.2823	BOLT	AN3-4A	
	1		1		1	18	601.2827	BOLT	AN3-13A	
	5		5		5	17	601.2912	SCREW	MS2464551	
1		1			1	16	646.3713	GUSSET		
1		1			1	15	646.3710	SUPPORT		
		1			1	14	646.3710	DOUBLER		
	1		1		1	13	646.3110	CHANNEL		
14	10	8	53		6	61	12	601.1624	LOCKNUT	MS21042-3
16	32	18	120	16	144	11	601.1607	WASHER	MS1149030P	
					1	10	646.3410	LH WIPER DEFLECTOR		
					1	9	646.3411	RH WIPER DEFLECTOR		
				2	2	8	647.7703	STRUT ASSY		
				2	2	7	647.0112	STRUT BRACKET		
		1		1	1	6	646.3511	STRUT		
		1		1	1	5	646.3510	STRUT		
2		2			2	4	646.3610	BRACKET		
				1	1	3	646.2910	DEFLECTOR		
		1		1	1	2	646.3001	LOWER CUTTER ASSY		
				1	1	1	646.3301	UPPER CUTTER ASSY		
X							646.4006	LOWER CUTTER FIXED PROVISIONS		
	X						646.4005	LOWER CUTTER REMOVABLE PROVISIONS		
		X					646.4004	FIXED PROVISIONS KIT		
			X				646.4003	CABLE CUTTERS FT WITHOUT FIXED PROVISIONS		
				X			646.4002	AS350 WIPER DEFLECTOR KIT		
					X		646.4001	AS350 CABLE CUTTERS KIT		
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.